



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,489	01/29/2004	Hiroyuki Ohnuma	31759-200511	3736
26694	7590	01/17/2007		
VENABLE LLP P.O. BOX 34385 WASHINGTON, DC 20043-9998			EXAMINER ADAMS, CHARLES D	
			ART UNIT	PAPER NUMBER
			2164	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/766,489

Applicant(s)

OHNUMA ET AL.

Examiner

Charles D. Adams

Art Unit

2164

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. In response to communications filed on 12 October 2006, claims 1-9, 11-19 are amended. Claims 1-20 are pending in the application.

The amendments to the specification submitted 12 October 2006 have been entered.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 1-20 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims do not produce a useful, concrete, and tangible result. To be useful the claimed invention must establish a specific, substantial, and credible utility. In this case the claims fail to perform a useful result because no result is claimed of the relevance calculations. There are calculations being made based on different items of data, but there is no claimed result of these calculations.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2164

5. Claims 1 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 11 recite the limitation "the higher weight value" in line 7. There is insufficient antecedent basis for this limitation in the claim, as there is no mention of a higher weight value.

Claims 1 and 11 also recite the limitation "a document weight calculation section which defines a mutual relevance among a plurality of documents including the named entities as an object to judge a significance". This limitation is unclear, as it is uncertain what is doing the judging (eg., the document weight calculation section, the object, or the mutual relevance). It is also unclear what is being judged.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-2, 5-12, and 15-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Chang (US Pre-Grant Publication 2003/0101415) in view of Bharat et al. (US Patent 6,112,203).

As to claim 1, Chang teaches an evaluation apparatus of named entities included in a document (see Abstract) comprising:

A document weight calculation section which defines a mutual relevance among a plurality of documents including the named entities as an object to judge a significance, and calculating weight values of said each document based on the relevance (see paragraphs [0065]-[0066] and [0093])

Chang does not teach whereby the documents having less mutual relation are given the higher weight value;

Bharat et al. teaches whereby the documents having less mutual relation are given the higher weight value (see 7:41-8:9. The weight equations explained in 7:77-8:9 work such that pages with a lower number of mutual relations to pages on the same server receive higher weights than items with a larger number of mutual relations on the same server).

Chang as modified teaches:

An evaluation value calculation section calculating an evaluation value of said named entities by carrying out a calculation process using the weight value of said each document (see Chang paragraphs [0095]-[0097];

Wherein the significance of the named entities is judged based on the evaluation value (see Chang paragraph [0098]. Elements having a higher weight value are given priority. This is an indication of significance).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Chang by the teaching of Bharat et al.,

since Bharat et al. teaches that “in our method, we use the following weights to prevent pages maintained by a single server from driving up scores in parts of the graph” (see 7:67-8:2).

As to claim 2, Chang as modified teaches wherein said plurality of documents in managed under at least one tree structure, and said document weight calculation section defines said relevance between respective documents corresponding to existing locations of said each document in same or different tree structures (see Chang paragraphs [0063]-[0066] and [0093], and Figures 3 and 6).

As to claim 5, Chang as modified teaches wherein if a first document and a second document are managed under different trees, said document weight calculation section maximizes the weight value of the first document and the second document (see Chang paragraphs [0070]-[0071], [0089], and [0093]. The root of the tree of documents is maximized, so if there exists another tree that another set of documents is managed under, its weight will be maximized).

As to claim 6, Chang as modified teaches wherein said document weight calculation section defines the relevance between respective documents corresponding to a reference relation between said respective documents (see Chang paragraphs [0093] and Figure 6. The relevance of a document compared to other documents is

defined based on the depth of a document, which is based on interconnections with other documents).

As to claim 7, Chang as modified teaches wherein said document weight calculation section increases or decreases the weight value of a first document and a second document corresponding to whether or not there exists a third document which directly or indirectly refers to both of the first document and the second document (see Chang paragraph [0093] and Figure 6. The weight is increased or decreased depending on how deep a document is. For example, if there is a third document that refers to the two documents from above, then their weights will be decreased as they are deeper in the tree).

As to claim 8, Chang as modified teaches wherein said document weight calculation section increases or decreases the weight value of a first document and a second document corresponding to whether or not the first document directly or indirectly refers to the second document (see Chang paragraph [0093] and Figure 6. If a document is directly or indirectly referred to by a document above it in the tree structure, its weight will be less than that document).

As to claim 9, Chang as modified teaches wherein if there is no other document referring to a first document, said document weight calculation section maximizes the

weight value of the first document (see Chang paragraph [0093] and Figure 6. The top of a tree has its weight maximized).

As to claim 10, Chang teaches further comprising a document collection section collecting said plurality of document (see Chang paragraphs [0061]-[0062] and [0103]-[0105]); and

A document relevance storage section storing the mutual relevance of the documents collected by said document collection section (see Chang paragraphs [0061]-[0062] and [0098]-[0101]).

As to claim 11, Chang teaches an evaluation method of named entities included in a document (see Abstract) comprising:

A document weight calculation process defining a mutual relevance among a plurality of documents including the named entities as an object to judge a significance and calculating weight values of said each document based on the relevance (see paragraphs [0065]-[0066] and [0093])

Chang does not teach whereby the documents having less mutual relation are given the higher weight value;

Bharat et al. teaches whereby the documents having less mutual relation are given the higher weight value(see 7:41-8:9. The weight equations explained in 7:77-8:9 work such that pages with a lower number of mutual relations to pages on the same

Art Unit: 2164

server receive higher weights than items with a larger number of mutual relations on the same server);

Chang as modified teaches:

An evaluation value calculation process calculating an evaluation value of said named entities by carrying out a calculation process using the weight value of said each document (see Chang paragraphs [0095]-[0097]); and

A significance judge process judging a significance of the named entities based on the evaluation value (see Chang paragraph [0098]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Chang by the teaching of Bharat et al., since Bharat et al. teaches that "in our method, we use the following weights to prevent pages maintained by a single server from driving up scores in parts of the graph" (see 7:67-8:2).

As to claim 12, Chang as modified teaches wherein said plurality of documents is managed under at least one tree structure, and in said document weight calculation process, the relevance between said respective documents is defined corresponding to existing locations of said each document in same or different tree structures (see Chang paragraphs [0062]-[0066] and [0093] and Figures 3 and 6).

As to claim 15, Chang as modified teaches wherein if a first document and a second document are managed under different trees, the weight value of the first

document and the second document is maximized (see Chang paragraphs [0070]-[0071], [0089], and [0091]).

As to claim 16, Chang as modified teaches wherein in the document weight calculation process, the relevance between respective documents is defined corresponding to a reference relation between said respective documents (see Chang paragraph [0093]).

As to claim 17, Chang as modified teaches wherein the weight value of a first document and a second document is increased or decreased corresponding to whether or not there exists a third document which directly or indirectly refers to both of the first document and the second document (see Chang paragraph [0093] and Figure 6).

As to claim 18, Chang as modified teaches wherein the weight value of a first document and a second document is increased or decreased corresponding to whether or not the first document directly or indirectly refers to the second document (see Chang paragraph [0093] and Figure 6).

As to claim 19, Chang as modified teaches wherein if there is no other document referring to a first document, the weight value of the first document becomes maximum (see paragraph [0093] and Figure 6).

As to claim 20, Chang teaches further comprising a document collection process collecting said plurality of document (see Chang paragraphs [0061]-[0062] and [0103]-[0105]); and

a document relevance storage process storing the mutual relevance of the documents collected in said document collection process (see Chang paragraphs [0061]-[0062] and [0098]-[0101]),

wherein said document collection process and said document relevance storage process are carried out at least before said document weight calculation process (see Chang paragraph [0062] and [0076]. The calculation of weights is done after the pages are created)

8. Claims 3-4 and 13-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Chang (US Pre-Grant Publication 2003/0101415) in view of Bharat et al. (US Patent 6,112,203), and further in view of Dean et al. (US Patent 6,138,113).

As to claim 3, Chang as modified teaches an evaluation apparatus as claimed in claim 2.

Chang as modified does not teach wherein said document weight calculation section increases or decreases the weight value of a first document and a second document corresponding to the number of nodes of the tree structure common to the first document and the second document.

Dean et al. teaches wherein said document weight calculation section increases or decreases the weight value of a first document and a second document corresponding to the number of nodes of the tree structure common to the first document and the second document (see column 3, lines 31-43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Chang by the teaching of Dean et al. since Dean et al. teaches "an improved ranking method that can be implemented as part of a search engine. Alternatively, our method can be implemented by one of the clients as part of the Web browser. Our method uses content analysis, as well as connectivity analysis, to improve the ranking of pages in the result set so that just pages related to a particular topic are identified" (see 3:6-12).

As to claim 4, Chang as modified teaches an evaluation apparatus as claimed in claim 2.

Chang as modified does not teach wherein said document weight calculation section increases or decreases the weight value of a first document and a second document corresponding to the number of branches of the tree structure existing between the first document and the second document.

Dean et al. teaches wherein said document weight calculation section increases or decreases the weight value of a first document and a second document corresponding to the number of branches of the tree structure existing between the first document and the second document (see 3:21-25 and 4:65-5:6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Chang by the teaching of Dean et al. since Dean et al. teaches "an improved ranking method that can be implemented as part of a search engine. Alternatively, our method can be implemented by one of the clients as part of the Web browser. Our method uses content analysis, as well as connectivity analysis, to improve the ranking of pages in the result set so that just pages related to a particular topic are identified" (see 3:6-12).

As to claim 13, Chang as modified teaches an evaluation method as claimed in claim 12.

Chang as modified does not teach wherein the weight value of a first document and a second document is increased or decreased corresponding to the number of nodes of the tree structure common to the first document and the second document.

Dean et al. teaches wherein the weight value of a first document and a second document is increased or decreased corresponding to the number of nodes of the tree structure common to the first document and the second document (see column 3, lines 31-43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Chang by the teaching of Dean et al. since Dean et al. teaches "an improved ranking method that can be implemented as part of a search engine. Alternatively, our method can be implemented by one of the clients as part of the Web browser. Our method uses content analysis, as well as connectivity analysis, to improve the ranking of pages in the result set so that just pages related to a particular topic are identified" (see 3:6-12).

As to claim 14, Chang as modified teaches an evaluation method claimed in claim 12.

Chang as modified does not teach wherein the weight value of a first document and a second document is increased or decreased corresponding to the number of branches of the tree structure existing between the first document and the second document.

Dean et al. teaches wherein the weight value of a first document and a second document is increased or decreased corresponding to the number of branches of the tree structure existing between the first document and the second document (see 3:21-25 and 4:65-5:6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Chang by the teaching of Dean et al. since Dean et al. teaches "an improved ranking method that can be implemented as part of a search engine. Alternatively, our method can be implemented by one of the clients as part of the Web browser. Our method uses content analysis, as well as connectivity analysis, to improve the ranking of pages in the result set so that just pages related to a particular topic are identified" (see 3:6-12).

Response to Arguments

9. Applicant's arguments with respect to claims 1 and 11 have been considered but are moot in view of the new ground(s) of rejection.

With respect to the 35 USC 101 rejection, Applicant argues that the claims, as written, have a useful result. This argument is incorrect. There are significance and weight values being calculated, however, nothing is being done with these calculations.

With respect to claim 1, Applicant argues that Chang does not disclose an evaluation apparatus or method of named entities where the significance of the named

Art Unit: 2164

entities is judged based on the evaluation value by using a plurality of documents. This argument is incorrect. In paragraph [0098], Chang discloses arranging named entities by weight value. This is a measure of significance. Chang also discloses judging named entities across a plurality of documents, as each web page is a separate document [0089]. The mutual relevance in Chang is the document tree – the documents have a mutual relevance to one another, with keywords in pages higher in the tree receiving a larger weight than keywords in items that appear in documents lower in the tree (see paragraphs [0089] and [0093]).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Dean et al. teaches "an improved ranking method that can be implemented as part of a search engine. Alternatively, our method can be implemented by one of the clients as part of the Web browser. Our method uses content analysis, as well as connectivity analysis, to improve the ranking of pages in the result set so that just pages related to a particular topic are identified" (see 3:6-12).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles D. Adams whose telephone number is (571) 272-3938. The examiner can normally be reached on 8:30 AM - 5:00 PM, M - F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2164

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Charles Adams
AU 2164

cy

Cam y
primary Examiner
Cam y Trung